

AL

GA

★ **Atlanta**

West Point Lake

★ **Columbus, GA**

Walter F. George Reservoir

Alabama

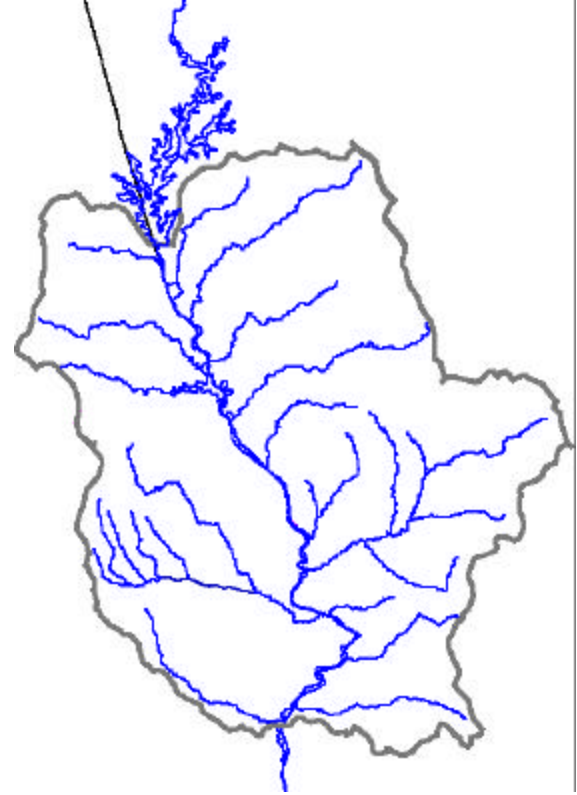
Georgia

Florida

Gulf of Mexico

***Columbus Water Works  
Middle Chattahoochee River  
Watershed Study***

# **Columbus Water Works Middle Chattahoochee River Watershed Study**



## **Project Objectives**

- **Drinking Water Protection**
- **Water Quality Improvements Due to CSO Controls**
- **Measurement of Watershed Health**
- **Framework for TMDL and Compliance with Standards**
- **Baseline for Watershed Management Plans**
- **Community Involvement & Outreach**

# **Project Stakeholders/Participants**

**US EPA Office of Water**

**Alabama Department of Environmental Management**

**Georgia Environmental Protection Division**

**Georgia Power**

**Mead Corporation**

**Columbus Water Works**

**Auburn University**

**Columbus State University**

**Georgia Institute of Technology**

**Chattahoochee River Keeper**

**Oxbow Environmental Learning Center – Focus Groups**

**Georgia Conservancy**

**Adopt-A-Stream**

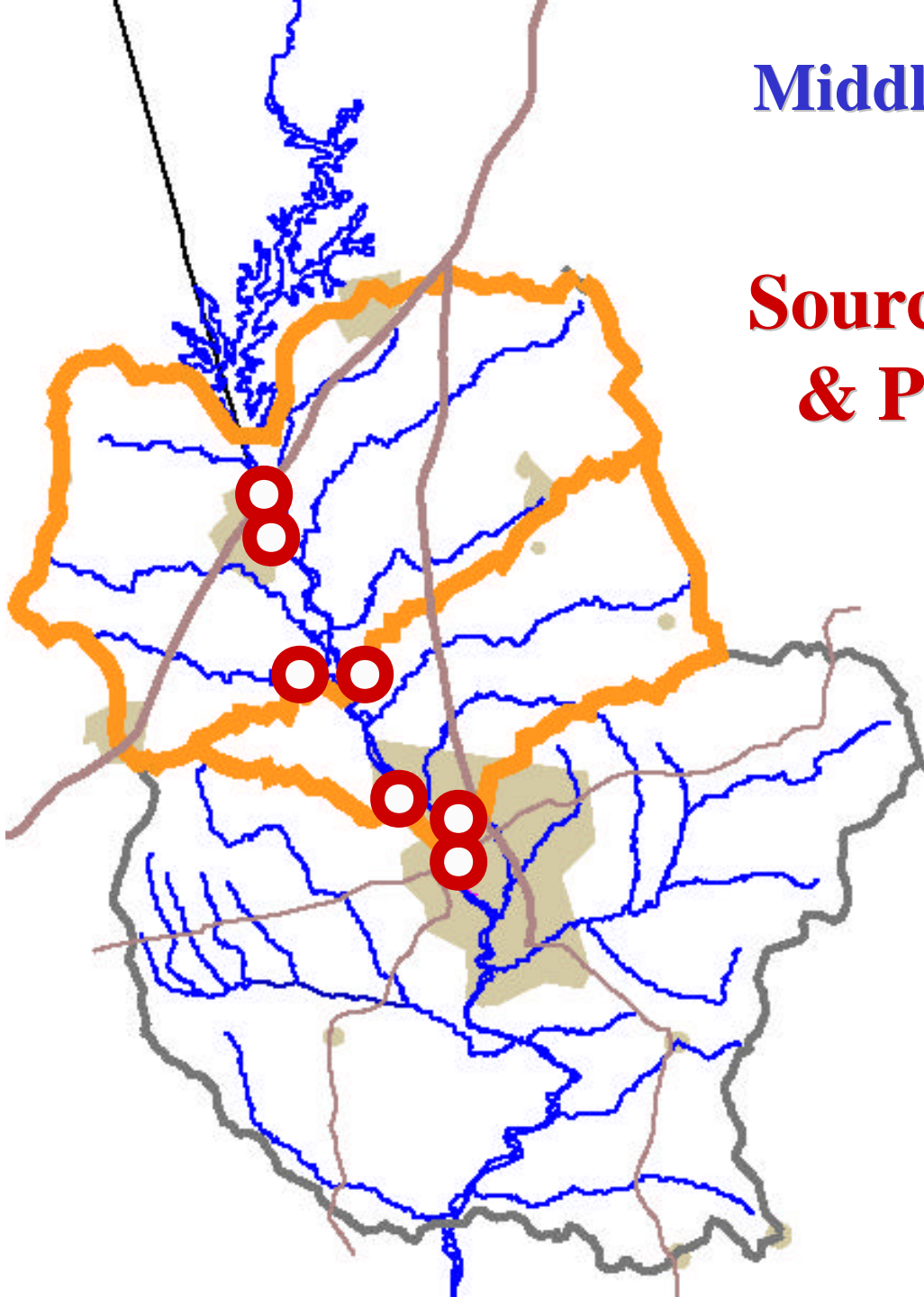
**RiverKids Network**

**Girl and Boy Scouts of America**

**Georgia Lake Society**

# Middle Chattahoochee River Watershed Study

## Source Water Assessment & Protection Program

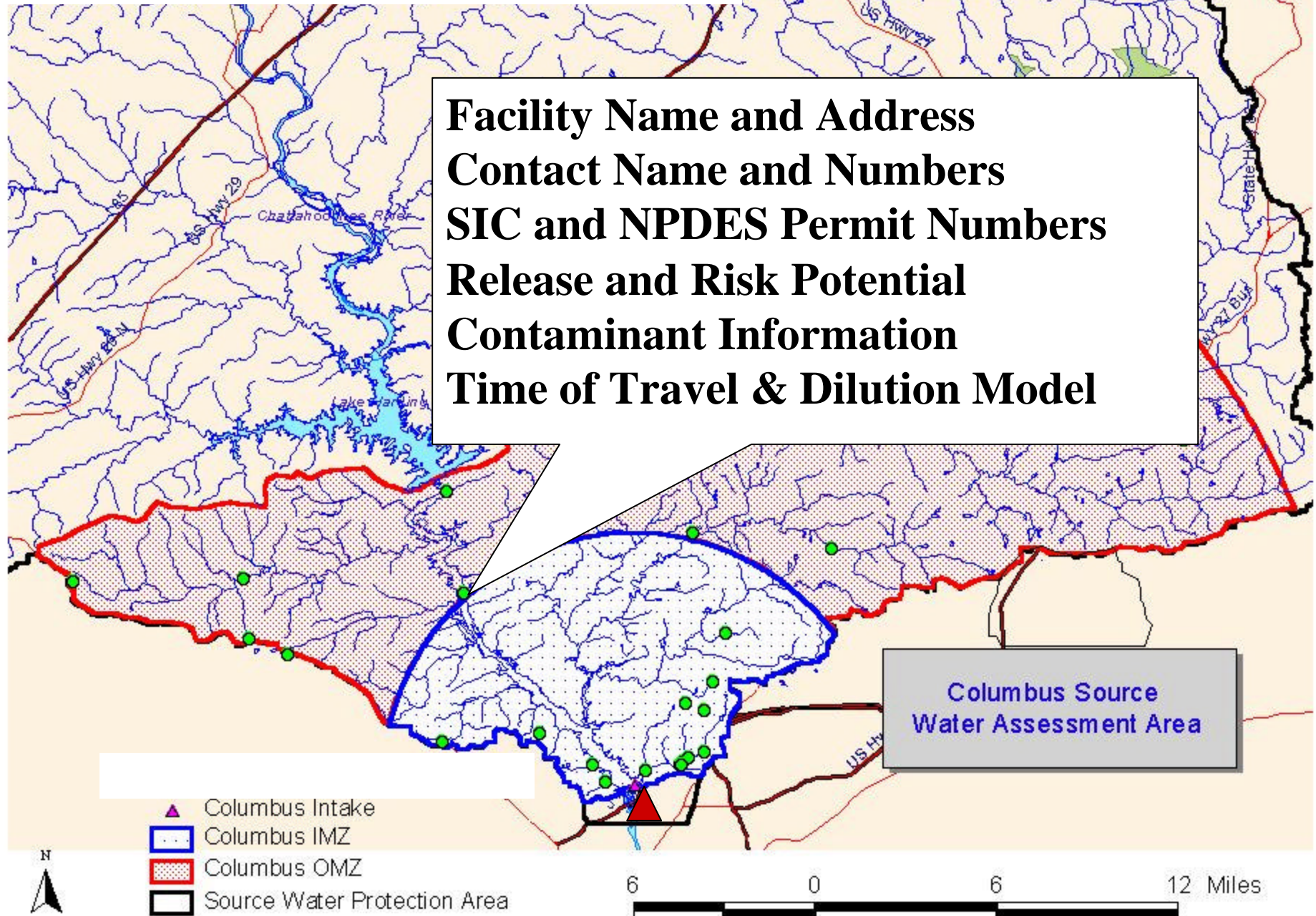


- Delineate Public Drinking Water Intakes and Assessment Areas
- Conduct Contaminant Inventories
- Evaluate Water Intake Susceptibility to Contamination
- Develop Operation Strategies and Watershed Protection Measures



# GIS Data Base Information

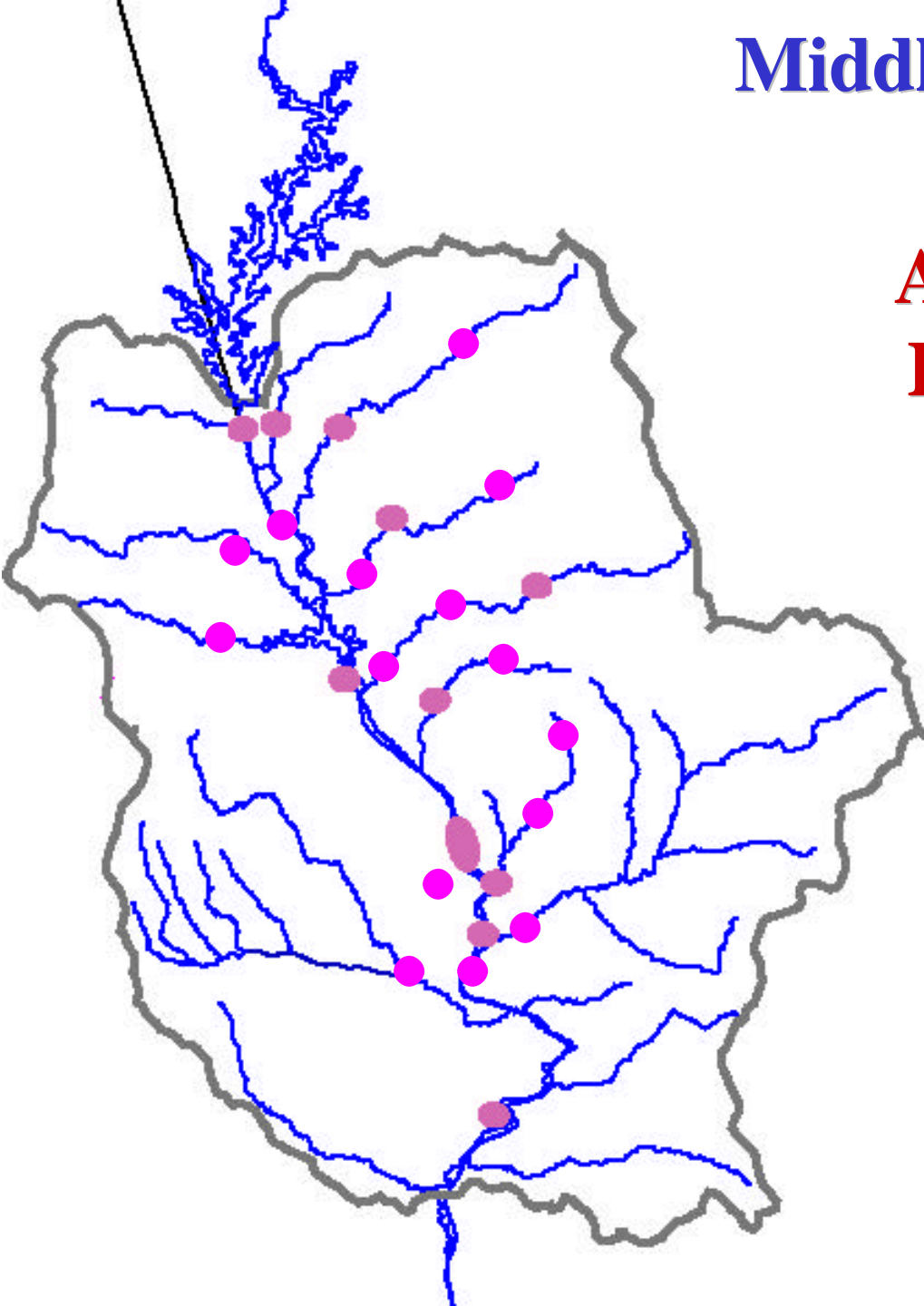
**Facility Name and Address**  
**Contact Name and Numbers**  
**SIC and NPDES Permit Numbers**  
**Release and Risk Potential**  
**Contaminant Information**  
**Time of Travel & Dilution Model**



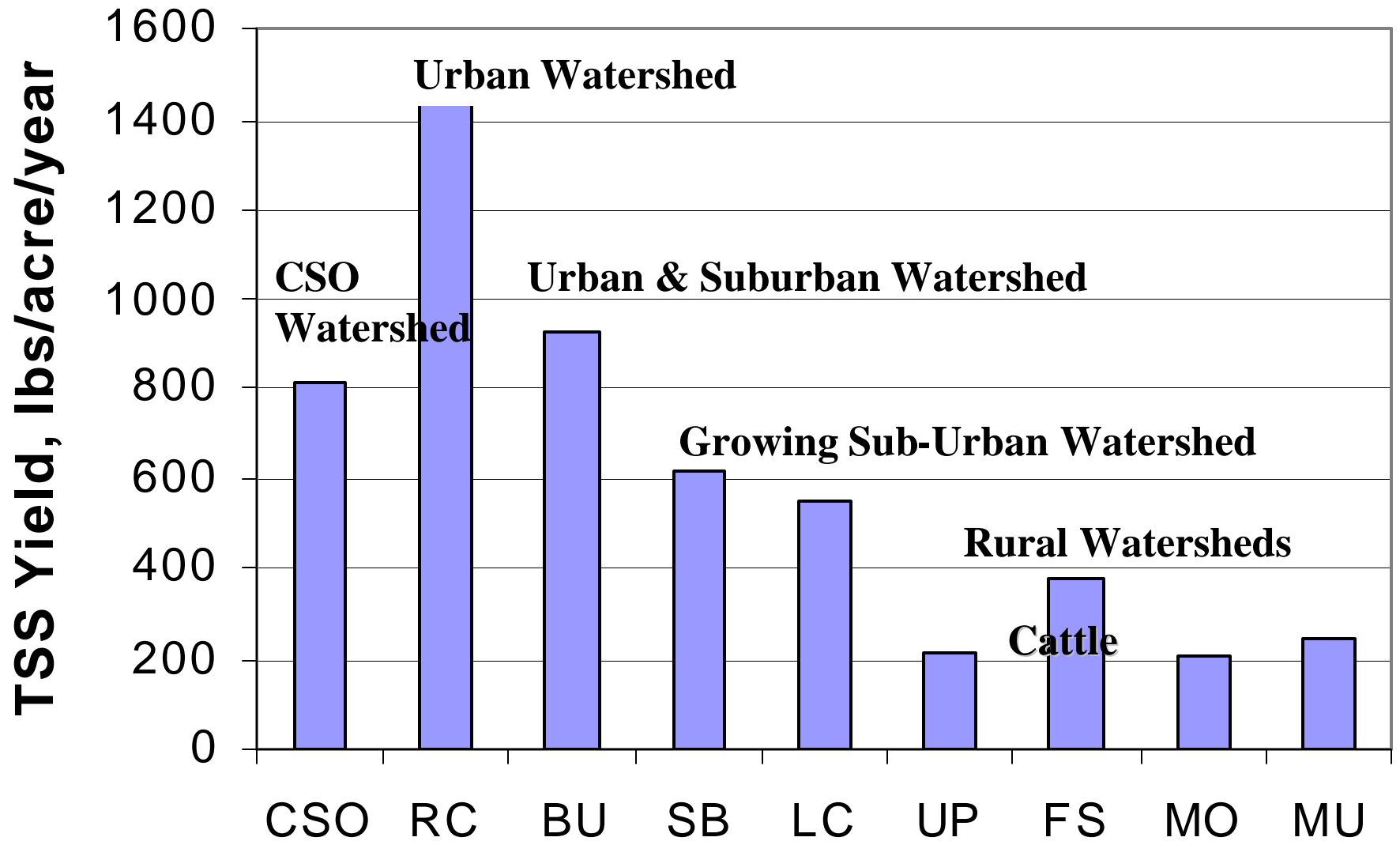
# Middle Chattahoochee River Watershed Study

## Aquatic Biology and Habitat Monitoring

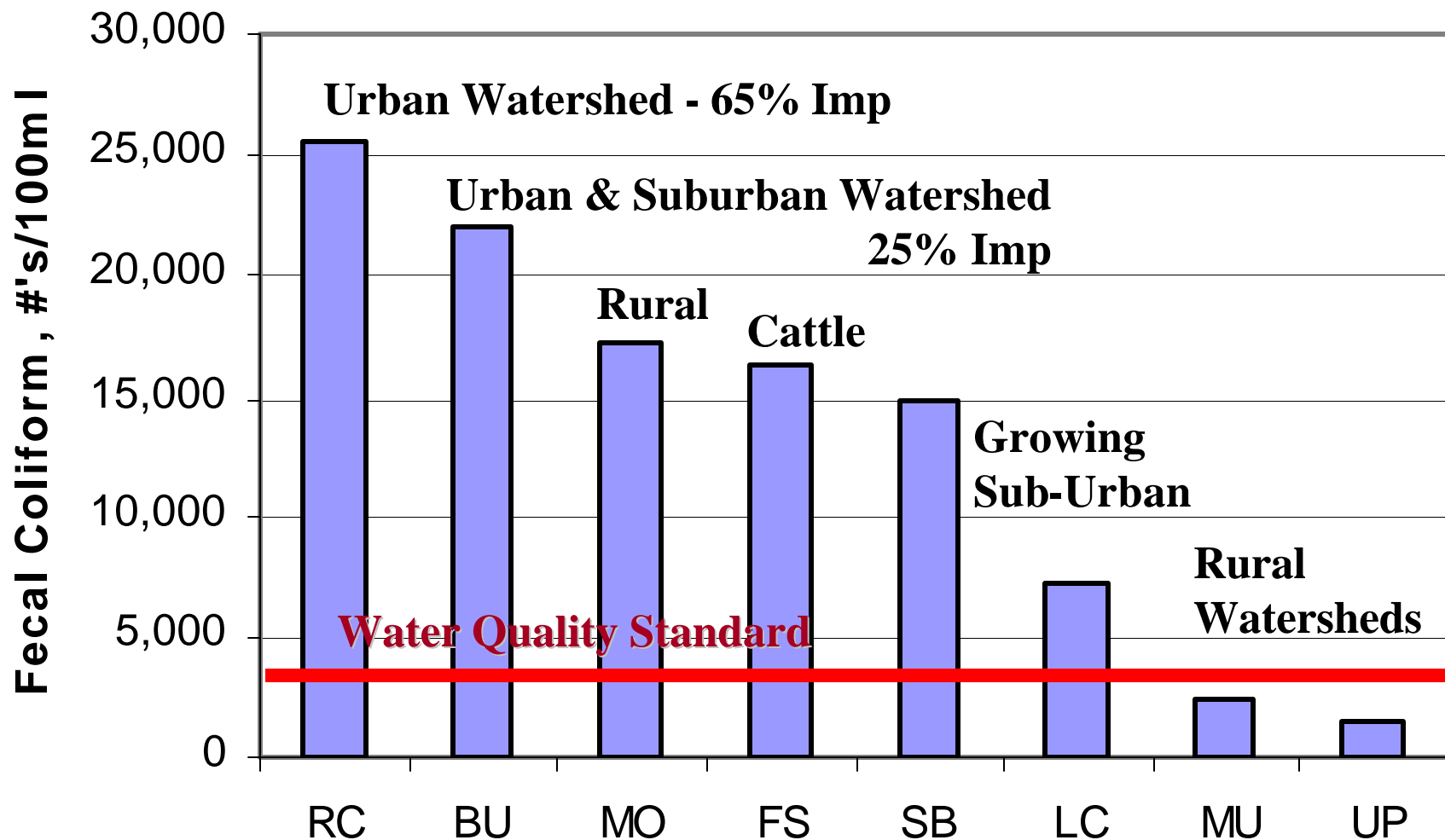
- Quarterly Invertebrate & Biannual Fish Surveys
- Habitat Descriptions
- Abundance and Diversity Measurements and Biotic Indices
- River and Stream Use and Water Quality Perception Surveys
- Correlation Between Biology Indices and Chemical Loadings



# TSS Yields by Watershed

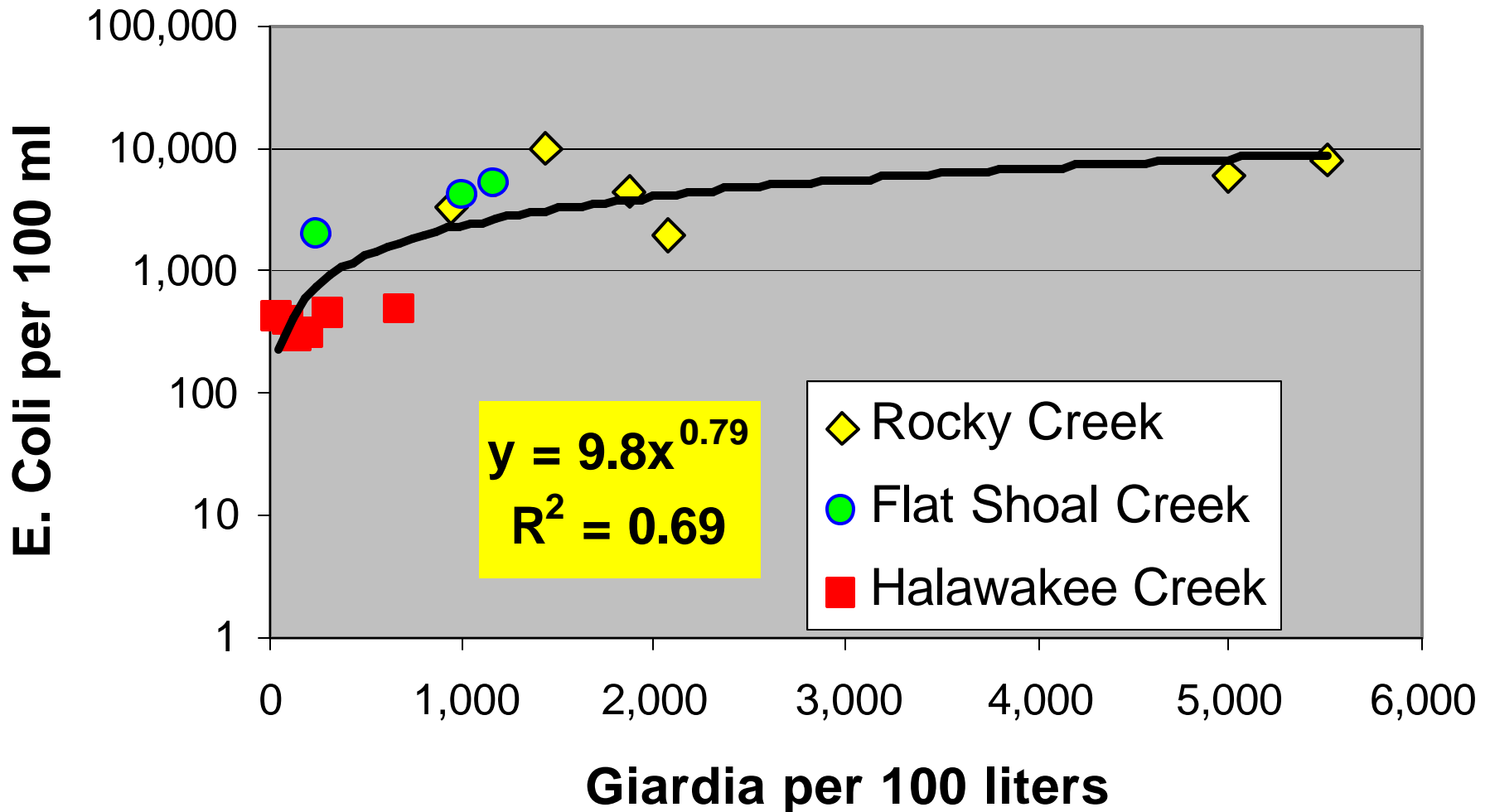


# Average Wet Weather Fecal Coliform Concentration by Watershed



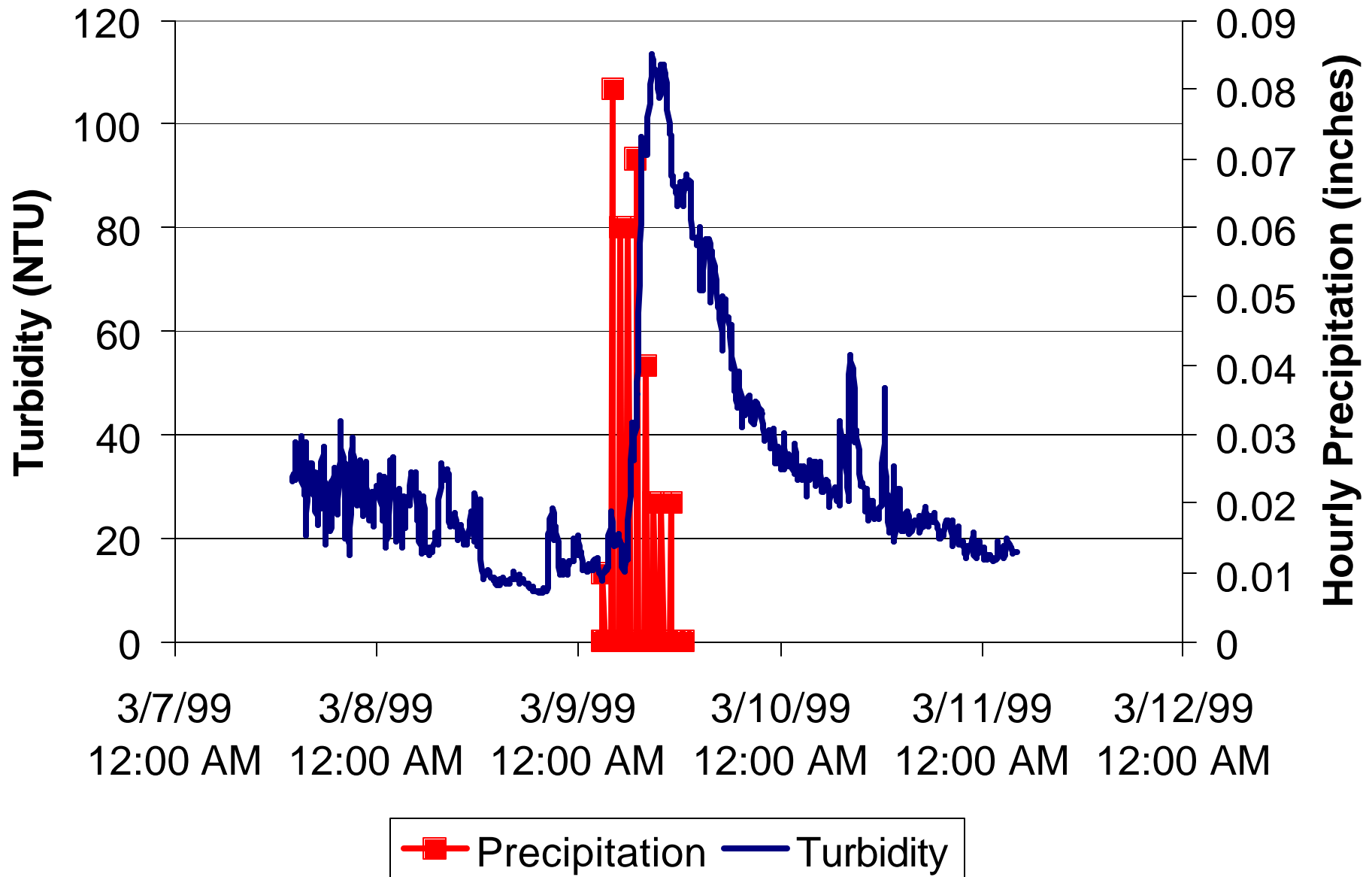


# Giardia vs E. Coli



# Roaring Branch Creek

## Total Rainfall 0.36 inches



**Velocity, feet per sec.**

**-1.0**

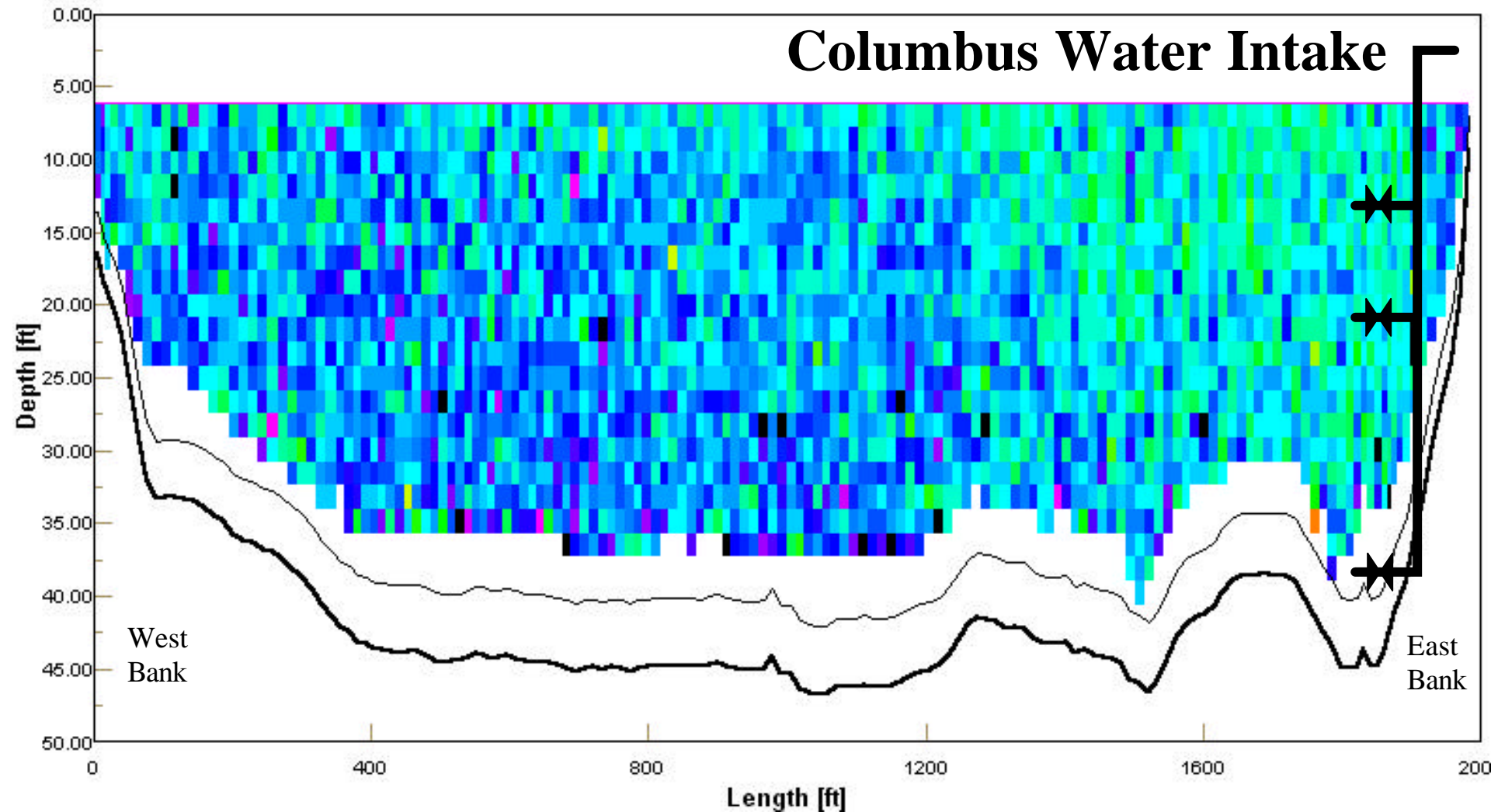
**0.0**

**1.0**

**2.0**



**Columbus Water Intake**



**River Transect at RM 163.3 - River Flow 8,000 cfs**  
**CWW Water Intake at Oliver Dam**

# **Proposed Source Water Protection Plan**

**Stakeholder Organization** – 7 Water Companies, GA Power, COE, AL and GA Regulators, NRCS, Mead Corp, local universities & the River Keeper

**Monitoring Network** – Internet-Based Long-Term Real-Time Monitoring Network on River and Primary Impact Creeks to Monitor Progress and Provide Early Warning

**Communications Network** – Internet-Based GIS Information and Communications Network Between Stakeholder Organizations, Stewardship Groups and Public

**Source Water Protection Policies** – Basinwide Policies for Watershed Management Approved and Implemented by Stakeholders through Local Ordinance and Agreements

**Implementation Plan** – Proposed Implementation of Basinwide Organization, Policies, Monitoring and Communications Network and Individual Protection Plans

